

ASD Weekly Highlights for the Week Ending 24-Mar-2006

Operations

ARR Preparation

Accelerator Physics

ARR Preparation

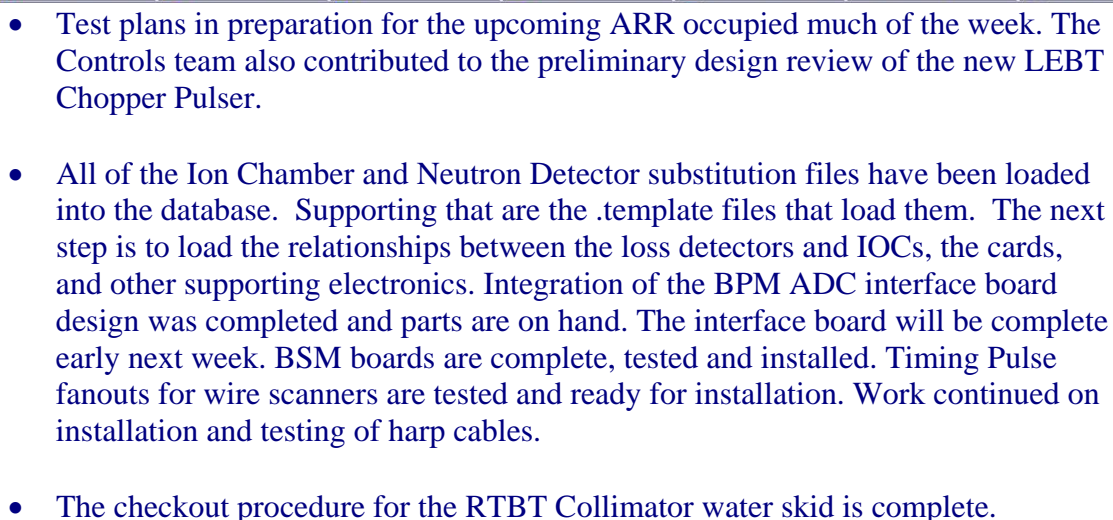
RF Systems

- Completed water connections and installed lead shielding on 805 MHz, 5 MW klystron in RF Test Facility. Waveguide and circulator inspection/completion is in progress. Plan to air-pad klystron into place next week.
- Received LLRF HPM and FCM spares from vendor. Inspection completed. Assembly and testing will commence soon.
- Provided operations support as needed.

Ion Source

Instrumentation and Controls

- An update of the manual for the reconfigured archiver and a new archiver snapshot tool were completed this week, and work began on an implementation of the EPICS archiver that will include a voice annunciation capability developed by the Operations Group.
- A new version of the PV Browser is available for testing. New features in this release include:
- Invalid PV's returned in the search results are highlighted in red.
- Selected PV's can be exported to a .db file. In the example below a set of PV's was selected and exported ("DB Export" button) which popped up the window showing the selected PV's. Additional PV's can be dragged and dropped into the window. Clicking "Save" on the popup window toolbar then creates the .db file.
- A status bar (not shown) shows number of records in the search results and the number of records selected within the search results.



- For target systems, SBEA was recertified after a minor software change to make the EPICS screen work properly. All target test plans are within a couple of steps of being finished. The last steps are to check and load final setpoints which will be completed next week for all systems. Work remains to complete the moderator cryogenic systems testing. A new soft IOC was added for keeping track of the mercury inventory in the PCES carbon adsorber beds. Some issues remain with negative values from the mercury analyzer, thought to be around the time of its auto-zero procedure.
- The LINAC ODH system annual certification was completed. All PPS certifications (Accelerator and Target PPS and Instrument PPS- beamline 2) are now complete, as is certification of the Transfer Bay Access Control System certification. Instrumentation of the stack monitor proceeds.

SRF Facility

Project Upgrade

Survey and Alignment

- RING:
Injection area deformation monitoring.
Map injection area (fiducials and flanges).
- RTBT:
Map the upstream flange of the flight tube between QH28 and QV29.
Map QH28 in situ.
Map QV27 in situ.
Set-out LVDT apparatus bolt holes.
Map and reset rad-hard mounting rails in tunnel.
Re-set QV27 on rad-hard test stand.
Re-map QV27 in situ.
QV15 re-aligned.
QH16 re-aligned.
- TARGET:
BL3: Guide inspection continuing.
BL4A: Complete the as-built survey of the granite tiles.
BL17: Distances measured from base plate fiducial to BSL fiducials.
BL17: Set precision Y target for elevation.
BL3: Set up guide observation transit for guide inspection.

Cryo Systems

Mechanical Systems

Shielding progress.

Ring Systems Installation Activities

- The HEBT LDRD chamber developed a leak during testing and the LDRD assembly was removed from the beamline.
- The HEBT Wire Scanner WS16 was installed as well as modifications to the 2 Momentum Scraper Assemblies.
- The HEBT spare Momentum Scraper Assembly was received.
- The RTBT magnets DH13, QV13 and QH14 beamline vacuum joints were reinstalled and leak tested. One of the joints requires further effort.
- The RTBT Target Quad magnet Q29 was installed and the vacuum joint to Q30 successfully made.
- The RTBT Target Quad drift pipe DP28 was installed and the vacuum joint to Q29 successfully made
- The RTBT Target Quad magnet Q28 was installed and the vacuum joint to DP28 successfully made
- The RTBT Target Quad magnet Q27 was installed and the vacuum joint to Q28 successfully made
- The RTBT Target Quad magnets' buss lines were leak tested and modifications to the remote couplings on Q30 & Q29 are scheduled.
- The RTBT Target Quad magnets Q27 and Q28 polarity measurements were conducted.
- The RTBT Target Quad magnets Q27 was made ready for power supply burn-in testing.
- The RTBT Target Quad / HARP air and Helium lines installation continued.
- The RTBT Drift Pipe DP26 support stands were received and staged for installation.
- The RTBT and Ring Injection Dump Gamma Blocker Stands were received.

Ring Water Systems Installation

- The RTBT Collimator Closed Cooling System operation continued.
- The RTBT Target Quad magnet remote cooling connector installation was completed.
- The RTBT Target Quad magnet buss cooling system gasket replacement was completed.
- The RTBT Target Quad magnet buss cooling system was pressure tested and 3 of the 4 magnets require slight modifications.

Electrical Systems

Modulators

- Installed another Control Chassis in SCLME-9 to address fault issues
- Setup the eprom burner to burn more chips for the SCL control chassis's.
- Programmed a Control Chassis for Modulator SCL9.
- Repaired defective ground connection on SCLME-9 MEC rack top panel
- Analyzed oil dissolved gas analysis results and determined no immediate action is required

Power Supplies

- Ordered spare SCR, DCCT and auxiliary control power supplies for medium size magnet supplies
- Tested extraction kickers with ferrite cores on magnet's current transformer signal cables
- Preparing for visit from LANL and BNL for the extraction kicker noise investigation next Monday and Tuesday
- Kicker Torroids Noise Test was performed
- Installed Finger Safe Test Points for Main Ring Dipole Power Supply

XFD Work

- Requested and received a quote for the 3rd Spin Flippers RF Amplifier.
- Alex Groff drew schematics and ordered all the parts necessary for the new motion control project.

Installation

- Performed Vacuum Cable Termination at RTBT (repair of flood damaged connectors)
- Installed Differential Pressure Switch for DI Water
- Installed HEBT Emergency Lighting

Other

- Dave Anderson and Jeff Mize conducted a successful conceptual/preliminary LEBT chopper pulser design review
- Dave Anderson organized expert visits for extraction kicker noise studies next week